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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/733,234	12/12/2003	Makoto Kimura	50353-627	9483

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McDERMOTT, WILL & EMERY  
600 13th Street, N.W.  
Washington, DC 20005-3096

EXAMINER
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CHAU, COREY P

ART UNIT	PAPER NUMBER
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2644

DATE MAILED: 10/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/733,234	<b>Applicant(s)</b> KIMURA, MAKOTO	
	<b>Examiner</b> Corey P Chau	<b>Art Unit</b> 2644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/12/03</u> | 6) <input type="checkbox"/> Other: ____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 10, 11, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No 3995124 to Gabr.

3. Regarding Claim 1, Gabr discloses a vocal sound input apparatus (i.e. noise canceling microphone) for an automotive vehicle (column 1, lines 8-19), comprising: a receiving microphone (14); and a noise collecting microphone (16), both of the receiving microphone and the noise collecting microphone being arranged onto a predetermined portion of a vehicle body in such a manner that a direction of a sensitivity of the receiving microphone is opposite to that of the noise collecting microphone (Fig. 1) for the receiving microphone to enable to receive a vocal sound from a speaker (column 1, lines 20-25) and for the noise collecting microphone to enable to collectively receive a noise of a surrounding of the speaker (column 1, lines 26-34).

4. Regarding Claim 2, Gabr discloses both of the receiving microphone (14) and the noise collecting microphone (16) are integrally mounted to each other in such a manner that the direction of the sensitivity of the receiving microphone is opposite to that of the noise collecting microphone (Fig. 1).

5. Regarding Claim 10, Gabr discloses the noise collecting microphone is connected to an adder via an inverter and the receiving microphone is connected to the adder and an output of the adder is connected to a voice recognition system mounted in the vehicle (column 2, lines 52-59).
6. Regarding Claim 11, Gabr discloses the microphone is connected to an adder via an inverter and the other microphone is connected to the adder and an output of the adder is connected to a telephone hand-free apparatus mounted in the vehicle (column 2, lines 52-59; column 1, lines 46-68).
7. Claim 13 is essentially similar to Claim 1 and is rejected for the reasons stated above apropos to Claim 1.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
9. Claims 3-9 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No 3995124 to Gabr.
10. Regarding Claim 3, Gabr discloses both of the receiving and noise collecting microphones are integrated together within a box-shaped frame of a microphone assembly (Fig. 1) in such a manner that the direction of the sensitivity of the receiving microphone is oriented toward an inside of a vehicular passenger compartment (i.e. the

microphone unit is intended to be used with one end thereof directed to the users' mouth, since the users is in the vehicle, the receiving microphone is oriented toward an inside of a vehicular passenger) and a noise collecting microphone to receiving noise. Gabr does not expressly disclose the noise collecting microphone oriented toward a clearance between a vehicle body outer plate and the vehicular passenger compartment. However it would have been obvious to one having ordinary skill in the art to provide the noise collecting microphone at a location where noise is present in order to eliminate the noise such as the noise present at a clearance between a vehicle body outer plate and the vehicular passenger compartment.

11. Claim 4 is essentially similar to Claim 3 and is rejected for the reasons stated above apropos to Claim 3.

12. All elements of Claim 5 are comprehended by Claim 3. Claim 5 is rejected for the reasons stated above apropos to Claim 3. It is obvious that the microphone assembly is disposed on a ceiling portion of the vehicle in order to receive signals from a clearance between a vehicle body outer plate and the vehicular passenger compartment.

13. Regarding Claim 6, Gabr as modified discloses the microphone assembly comprises: a first plate (22) having a first circular center hole into which the receiving microphone is fitted, a second plate (22) juxtaposed to the first plate and having a center hole into which the noise collecting microphone is fitted (column 2, lines 28-40); a third plate having a third circular center hole with its center point through which a first line denoting the direction of the sensitivity of the receiving microphone is penetrated; and a fourth plate having a fourth circular center hole with its center point through which

a second line denoting the direction of the sensitivity of the noise collecting microphone is penetrated (Figs 2 and 3; column 3, line 59 to column 4, line 40), both of the first line and the second line being on the same line but the directions thereof being mutually 180.degree. opposite to each other (Fig. 1).

14. All elements of Claim 7 are comprehended by Claim 5. Claim 7 is rejected for the reasons stated above apropos to Claim 5.

15. All elements of Claim 8 are comprehended by Claim 5. Claim 8 is rejected for the reasons stated above apropos to Claim 5.

16. Regarding Claim 9, Gabr as modified does not expressly disclose the microphone assembly further comprises a room mirror base having an attachment hole to which the engagement portion of the receiving microphone is engaged and an opening is formed at a portion of the room mirror base, which faces toward the receiving microphone. However it would have been obvious to one of ordinary skill in the art at the time the invention was made to place the microphone assembly in any existing structure of the vehicle, such as a room mirror base, as taught by Watson (Figs.1 and 2).

17. Claim 14 is essentially similar to Claims 1 and 3 and is rejected for the reasons stated above apropos to Claims 1 and 3.

18. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No 3995124 to Gabr in view U.S. Patent No. 6748308 to Losey.

19. Regarding Claim 12, Gabr does not expressly disclose a vehicle speed sensor is connected to a switch to connect the noise collecting microphone to the inverter when a vehicle speed detected by the vehicle speed sensor is equal to or higher than a predetermined vehicle speed. However it would have been obvious to one having ordinary skill in the art to provide such a vehicle speed sensor connected to a switch connect the noise collecting microphone to the inverter when a vehicle speed detected by the vehicle speed sensor is equal to or higher than a predetermined vehicle speed in order reduce noise when noise is equal to or higher than a predetermined vehicle speed because the noise generated increases as the vehicle speed increases as taught by Losey. Losey teaches that a high speed of a vehicle may cause excessive noise, which may be bothersome to drivers and/or passengers of the vehicle (column 1, lines 19-36). Losey discloses a vehicle speed sensor in use with a switch to activate or deactivate a feature of a vehicle when the speed of the vehicle is above a threshold in order to reduce noise (column 3, lines 3-30; column 3, line 58 to column 4, line 19). Although Losey discloses activation or deactivation of power windows system, Losey teaches that as the speed of the vehicle increases, the noise generated increases and therefore to perform an operation to reduce the noise when the speed of the vehicle is above a threshold so that the noise does not become bothersome to drivers and/or passengers of the vehicle. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Gabr with the teaching of Losey to utilize a vehicle speed sensor with a switch to activate or deactivate the noise receiving

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microphone when the speed of a vehicle is above a threshold in order to reduce noise when needed.

### ***Conclusion***

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Corey P Chau whose telephone number is (703)305-0683. The examiner can normally be reached on Monday - Friday 9:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W Isen can be reached on (703)305-4386. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

September 21, 2004

  
**FORESTER W. ISEN**  
**SUPERVISORY PATENT EXAMINER**